

Application No. 09/815,646
Art Unit 3626

Claim 1 (currently amended): A method for determining an overall level of confidence for a medical clinical conclusion comprising the steps of:

- a. determining at least one medical element from a set of medical data, wherein each medical element is associated with an impact parameter for the medical clinical conclusion;
- b. for each medical element, generating a confidence parameter as a function of the medical clinical conclusion; and
- c. determining an overall level of confidence parameter as a function of each of the confidence parameter[[s]] and [[the]]associated impact value[[s]].

Claim 2 (original): The method according to claim 1, wherein step (a) further includes the step of parsing the set of medical data to match at least one phrase with a previously stored essential element.

Claim 3 (original): The method according to claim 1, wherein the confidence parameter is determined as a function of a measurement value.

Claim 4 (original): The method according to claim 3, wherein the function is a fuzzy logic membership function.

Claim 5 (original): The method according to claim 1, wherein step (c) further includes the step of generating a linear combination of second functions, wherein the second functions take a confidence parameter and impact value as arguments.

Claim 6 (original): The method according to claim 5, wherein the second functions generate a product of a confidence parameter and an impact parameter.

Claim 7 (canceled)

Claim 8 (original): A method for determining an overall level of confidence for medical clinical conclusion comprising the steps of:

- a. storing a plurality of possible clinical conclusions;
- b. storing a plurality of medical essential elements;
- c. for each clinical conclusion, storing a plurality of membership functions, wherein each membership function associates an essential element with a clinical conclusion;
- d. storing a plurality of impact parameters, wherein each impact parameter associates a weight of an essential element pointing toward a clinical conclusion;
- e. determining at least one relevant medical essential element; and

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f. generating an overall confidence parameter for the medical clinical conclusion as a function the at least one relevant medical essential element, the associated membership functions and the impact parameters.

Claim 9 (original): A method for determining an overall level of confidence for a medical clinical conclusion comprising the steps of:

- a. storing at least one membership function, wherein each membership function relates a medical element with a membership confidence value for a clinical conclusion;
- b. storing a criterion impact parameter for each membership function, wherein each criterion impact parameter represents an importance of a medical element with respect to a clinical conclusion; and,
- c. determining an overall confidence value for the clinical conclusion, wherein the overall confidence value is determined as a function of at least one membership function and at least one criterion impact parameter.

Claim 10 (withdrawn): A method for evaluating a medical clinical conclusion comprising the steps of:

- (a) storing at least one medical essential element;
- (b) storing at least one medical rule, wherein each medical rule associates a medical essential element with a clinical conclusion and at least one of a membership confidence function and an impact parameter;
- (c) receiving at least one medical claim item, wherein each medical claim item is associated with a medical essential element and a date parameter;
- (d) sequencing the at least one medical claim item as a function of the associated date parameter;
- (e) segmenting the at least one medical claim item into at least one chronological segment, wherein each chronological segment includes at least one medical claim item and is associated with a clinical significance; and,
- (f) for each chronological segment determining a total membership confidence value with respect to the clinical conclusion based upon the at least one medical rule.

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Claim 11 (withdrawn): A method for evaluating a medical clinical conclusion comprising the steps of:

- (a) storing at least one medical essential element;
- (b) storing at least one medical rule, wherein each medical rule associates a medical essential element with a clinical conclusion and at least one of a membership confidence function and an importance parameter;
- (c) parsing at least one medical record, which includes a plurality of phrases, to generate at least one medical claim item, wherein each medical claim item is associated with a medical essential element and a date parameter;
- (d) sequencing the at least one medical claim item as a function of the associated date parameter;
- (e) segmenting the at least one medical claim item into at least one chronological segment, wherein each chronological segment includes at least one medical claim item and is associated with a clinical significance; and
- (f) for each chronological segment determining a total membership confidence value with respect to the clinical conclusion as a function of at least one medical rule.

Claim 12 (withdrawn): The method according to claim 11, wherein step (c) further includes the steps of:

- (i) storing at least one phrase element, wherein each phrase element is associated with a medical essential element; and
- (ii) for each of the plurality of phrases in the medical record, locating a matching phrase element.

Claim 13 (withdrawn): The method according to claim 12, wherein step (e) further includes the steps of:

- (i) storing at least one chronological rule, wherein each chronological rule associates an essential element with a change in a clinical segment; and
- (ii) evaluating the medical essential element associated with each medical claim item using a chronological rule to determine at least one segment point.

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Claim 14 (withdrawn): The method according to claim 12, wherein step (f) further includes the steps of:

- (i) based upon the at least one medical rule calculating a sum of membership functions multiplied by an impact parameter with respect to the medical clinical conclusion for each medical item; and,
- (ii) dividing said sum by a sum of an importance parameter associated with each medical item.

Claim 15 (withdrawn): A system for evaluating a medical clinical conclusion, comprising:

a database for storing medical essential elements; a database for storing at least one medical rule, wherein each medical rule associates a medical essential element with a clinical conclusion and at least one of a membership confidence parameter and an importance parameter; means for receiving at least one medical record, wherein each medical record includes a plurality of phrases; a processor, wherein the processor is adapted to:

- (a) parse the at least one medical record to generate at least one medical claim item, wherein each medical claim item is associated with a medical essential element and a date parameter;
- (b) sequence the at least one medical claim item as a function of the associated date parameter;
- (c) segment the at least one medical claim item into at least one chronological segment, wherein each chronological segment includes at least one medical claim item and is associated with a clinical significance; and,
- (d) calculate a total membership confidence value with respect to a clinical conclusion as a function of at least one medical rule.

Claim 16 (currently amended): A method for determining an overall level of confidence for a conclusion comprising the steps of:

- a. determining at least one element from a set of data, wherein each element is associated with an impact parameter for the conclusion;
- b. for each element, generating a confidence parameter as a function of the conclusion; and,
- c. determining an overall level of confidence parameter as a function of each of the confidence parameter[[s]] and [[the]]associated impact value[[s]].

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Claim 17 (new) A system for determining an overall level of confidence for a medical clinical conclusion comprising:

a processor;

a medical element database storing medical element data;

a medical rules knowledge database storing medical rules correlating at least one medical element to the medical clinical conclusion; and

a membership confidence generator calculating the overall level of confidence that the medical element correlates to the medical clinical conclusion.

Claim 18 (new) The system of claim 17 further comprising:

a criterion impact database storing a criterion impact factor quantifying the importance of the medical element to the medical clinical conclusion,

wherein the membership confidence generator calculates the overall level of confidence as a function of the criterion impact factor, medical element and medical clinical conclusion.